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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

LE, U

ART UNIT

PAPER NUMBER

2771

DATE MAILED:

09/13/99

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/044,163

Applicant(s)

Simokawa et al

Examiner

Uyen Le

Group Art Unit

2771



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: it appears that claim 5, line 1 should read “according to claim 6”;

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because:

- In claim 13, lines 12-13, the limitation regarding “loading said time series data piece for said predetermined time applied so as to be loaded” is not understood because of the awkward wording. Therefore, the limitation can not be ascertained;
- In claim 13, lines 16-17, the limitation regarding “updating said oldest bookmark information to said bookmark information corresponding to said loaded data” is not understood because of the awkward wording. Therefore, the limitation can not be ascertained.

The art rejection of claim 13 is applied as best understood in light of the rejection under 35 U.S.C. 112 second paragraph discussed above.

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Claim Rejections - 35 USC § 101

3. Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-6 merely recite a data structure without any practical use.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crus et al (US Patent 4,961,134).

Claim 1 merely recites features indispensable to any data structure in a database for storing data. The claimed plurality of data areas for loading time series data pieces merely reads on timestamped data stored in any database, one of which is shown by Crus (see column 13, lines 37-38). Data pieces clearly are loaded in sequence of times. The bookmark as claimed merely keeps track of the time the data is loaded and the status of data storage. Crus further teaches the concept of a status indicator when Crus shows that five data page status indicator values are maintained (see the abstract). Therefore, it would have been obvious to one of ordinary skill in the art to include any information of interest to the status area as taught by Crus depending on system requirement and designer's choice.

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Claim 4 differs from claim 1 only by reciting data pieces loaded at “predetermined locations” and “predetermined” bookmark information areas. Clearly storing data in a database requires predetermined location for storage. The claimed predetermined bookmark areas merely read on the location of a required field chosen by the designer of the database for storing status information.

Claims 2, 5 merely recite the well known fact that no data storage has unlimited space and that status indicators can be read consecutively.

Regarding claims 3, 6, the claimed state transition information is merely a design choice depending on system requirement. It would have been obvious to one of ordinary skill in the art to add any information deemed necessary for the system including whether a data piece is loading, available or empty.

Regarding claim 7, the claimed method of managing data in a database merely reads on routine procedures for storing data in any database using timestamped data as shown by Crus (see column 13, lines 37-38). Data pieces clearly are loaded in sequence of times for predetermined times. The bookmark as claimed merely keeps track of the time the data is loaded and the status of data segment. Crus further teaches the concept of a status indicator when Crus shows that five data page status indicator values are maintained (see the abstract). The claimed predetermined location merely read on a designated field well known in any data structure. Therefore, it would have been obvious to one of ordinary

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skill in the art to add any information of interest to the status area as taught by Crus including whether data is available, loading or empty depending on system requirement and designer's choice.

Claims 8, 9 merely read on responding to data retrieval request by reading the timestamped data and status indicator in the method taught by Crus and providing the data requested if such data is available.

Claim 10 merely reads on responding to data deletion request by reading the timestamped data and status indicator in the method taught by Crus, deleting the data and setting the status indicator accordingly.

Claim 11 adds the limitation of storing data pieces for a predetermined time and adding a bookmark identifying the collection in the storage area. It would have been obvious to one of ordinary skill in the art to do so in order to identify a collection of data by the same bookmark for easy retrieval.

Claim 12 merely recite well known procedures for data management in a database storing a plurality of timestamped data pieces identified by an address of the first piece and a flag indicating the last piece.

Claim 13 merely reads on well known procedure for sorting data pieces based on time.

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Claims 14, 15 merely recite well known procedures for checking for available storage and storing timestamped data.

Claims 16, 17, 18, 19 are rejected for the same reasons discussed respectively in claims 8, 9, 10, 11 above.

Claim 20 merely recites components indispensable for any database management system storing timestamped data. The bookmark as claimed merely reads on the status indicator shown by Crus (see the abstract).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosures.

Cragun et al (US Patent 5,859,662) teach an apparatus and method for selectively viewing video information.

Grand (US Patent 4,823,310) teaches a device for enabling concurrent access of indexed sequential data files.

Tanaka (US Patent 5,890,202) teaches a method of accessing storage units using a schedule table having free periods corresponding to data blocks for each storage portion.

Wilkinson et al (US Patent 5,261,069) teaches a method of maintaining consistency of cached data in a database system.

Zbikowski et al (US Patent 5,878,410) teach a file system sort order indexes.

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Carr et al (US Patent 5,835,915) teach a remote duplicate database facility with improved throughput and fault tolerance.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen Le whose telephone number is (703) 305-4134.

The examiner can be reached on Monday through Thursday from 7:00am to 4:30pm.

The examiner can also be reached on alternate Fridays from 7:00am to 3:30pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703)305-9707.

Any response to this action should be mailed to:

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Washington D.C. 20231

or faxed to: (703)308-9051, (for formal communications intended for entry)

or: (703)308-5403 (for informal or draft communications, please label

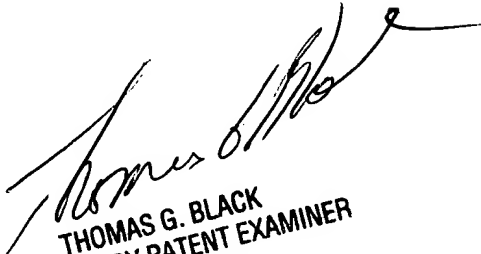
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone is (703)305-3900.

UL

09/08/99


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 2700